



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2012-0042; Directorate Identifier 2011-NM-154-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede an existing airworthiness directive (AD) that applies to certain Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2D15 (Regional Jet Series 705), and CL-600-2D24 (Regional Jet Series 900) airplanes. The existing AD currently requires a one-time inspection of the main landing gear (MLG) shock strut assemblies for part and serial numbers; for certain MLG shock strut assemblies, a one-time inspection of the torque link apex joint, and corrective actions if necessary; and, for certain MLG shock strut assemblies, replacement or rework of the apex nut. Since we issued that AD, we have determined that part and serial numbers for MLG shock strut assemblies for Model CL-600-2D15 and CL-600-2D24 airplanes were inadvertently omitted from certain requirements of the existing AD. This proposed AD would continue to require the actions in the existing AD, and would add the previously omitted part and serial numbers. We are proposing this AD to detect and correct improper assembly and damage of the MLG torque link apex joint, which could cause heavy vibration during landing, consequent damage to MLG components, and

subsequent collapse of the MLG.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., 400 Cote-Vertu Road West, Dorval, Quebec H4S 1Y9, Canada; phone: 514-855-5000; fax: 514-855-7401; e-mail: [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet: <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Stephen Kowalski, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; phone: 516-228-7327; fax: 516-794-5531; e-mail: [Stephen.Kowalski@faa.gov](mailto:Stephen.Kowalski@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0042; Directorate Identifier 2011-NM-154-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

## **Discussion**

On March 23, 2011, we issued AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011). That AD required actions intended to address an unsafe condition on Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2D15 (Regional Jet Series 705), and CL-600-2D24 (Regional Jet Series 900) airplanes.

Since we issued AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011), we have determined that part and serial numbers for main landing gear (MLG) shock strut assemblies for Model CL-600-2D15 (Regional Jet Series 705) airplanes and Model CL-600-2D24 (Regional Jet Series 900) airplanes were inadvertently omitted from paragraphs (g) and (h) of that AD. As a result, operators could be inspecting for part and serial numbers which they do not have, and would, therefore, not be required to accomplish the actions intended to correct the identified unsafe condition on those airplanes. Therefore, we have removed airplanes identified in paragraph (c)(2) of this AD from the requirements of paragraphs (g), (h), and (i) of this AD. We have added new requirements for those airplanes to inspect for the appropriate part numbers and serial numbers, and to do all applicable inspections and corrective actions.

AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011), referred to Transport Canada Civil Aviation (TCCA) (the aviation authority for Canada) Airworthiness Directive CF-2009-20, dated May 1, 2009 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

There have been four reports of loose or detached main landing gear torque link apex pin locking plate and the locking plate retainer bolt. This condition could result in torque link apex pin disengagement, heavy vibration during landing, damage to main landing gear components and subsequent main landing gear collapse.

Investigation has determined that incorrect stack-up tolerances of the apex joint or improper installation of the locking plate and apex nut could result in torque link apex pin disengagement. This [TCCA] directive mandates [a one-time detailed] inspection of the torque link apex joint [for correct installation and damage, and corrective actions if necessary] and replacement of the torque link apex nut.

The corrective actions include re-installing parts that are not correctly installed and replacing damaged parts. You may obtain further information by examining the MCAI in the AD docket.

#### **FAA’s Determination and Requirements of This Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

### **Differences Between This AD and the MCAI or Service Information**

The MCAI specifies to inspect only airplanes having certain serial numbers that are part of the MCAI applicability. Because the affected part could be rotated onto any of the airplanes listed in the applicability, this proposed AD would continue to require that the inspection be done on all airplanes. We have coordinated this with the TCCA.

### **Costs of Compliance**

Based on the service information, we estimate that this proposed AD would affect about 361 products of U.S. registry.

The actions required by AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011), and retained in this proposed AD that about 5 work-hours per product, at an average labor rate of \$85 per work hour. Based on these figures, the estimated cost of the currently required actions is \$153,425, or \$425 per product.

We estimate that it would take about 5 work-hours per product to comply with the new basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$153,425, or \$425 per product.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Amendment 39-16654 (76 FR 20498, April 13, 2011) and adding the following new AD:

**Bombardier, Inc.:** Docket No. FAA-2012-0042; Directorate Identifier 2011-NM-154-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD supersedes AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011).

#### **(c) Applicability**

This AD applies to the Bombardier airplanes identified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category.



(1) Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) airplanes, serial numbers (S/Ns) 10003 and subsequent.

(2) Model CL-600-2D15 (Regional Jet Series 705) airplanes and Model CL-600-2D24 (Regional Jet Series 900) airplanes, S/Ns 15001 and subsequent.

**(d) Subject**

Air Transport Association (ATA) of America Code 32: Landing gear.

**(e) Reason**

This AD was prompted by reports of loose or detached main landing gear (MLG) torque link apex pin locking plate and the locking plate retainer bolt in the torque link apex joint. We are issuing this AD to detect and correct improper assembly and damage of the MLG torque link apex joint, which could cause heavy vibration during landing, consequent damage to MLG components, and subsequent collapse of the MLG.

**(f) Compliance**

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

**RESTATEMENT OF REQUIREMENTS OF AD 2011-08-04, AMENDMENT 39-16654 (76 FR 20498, APRIL 13, 2011):**

**(g) Inspection for Part Number (P/N) and Serial Number (S/N) for Model CL-600-2C10 Airplanes**

For airplanes identified in paragraph (c)(1) of this AD: Within 900 flight hours after May 18, 2011 (the effective date of AD 2011-08-04, Amendment 39-16654 (76 FR 20498, April 13, 2011)), inspect the main landing gear (MLG) shock strut assemblies to determine whether an MLG shock strut assembly having P/Ns 49000-11 through 49000-22 inclusive and a S/N 0001 through 0284 inclusive is installed. A review of

airplane maintenance records is acceptable in lieu of this inspection if the part and serial numbers of the MLG shock strut assembly can be conclusively determined from that review.

**(h) Inspection of the Torque Link Apex Joint for Model CL-600-2C10 Airplanes**

For any MLG shock strut assembly having P/Ns 49000-11 through 49000-22 inclusive and a S/N 0001 through 0284 inclusive found installed during the inspection or records check required by paragraph (g) of this AD: Within 900 flight hours after May 18, 2011, perform a one-time detailed inspection and all applicable corrective actions on the torque link apex joint, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008, except as provided by paragraph (o) of this AD. Do all applicable corrective actions before further flight.

**(i) Replacement or Rework of the Apex Nut for Model CL-600-2C10 Airplanes**

For any MLG shock strut assembly identified during the inspection or records check required by paragraph (g) of this AD: Within 4,500 flight hours after May 18, 2011, replace or rework the apex nut, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008.

**(j) Parts Installation**

For all airplanes: As of May 18, 2011, no person may install, on any airplane, a replacement MLG shock strut assembly identified in paragraph (j)(1) or (j)(2) of this AD, unless it has been reworked in accordance with paragraph B. of Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008.

(1) Part numbers 49000-11 through 49000-22 inclusive, and with a serial number in the range of S/Ns 0001 through 0284 inclusive (the serial number can start with "MA," "MAL," or "MA-").

(2) Part numbers 49050-5 through 49050-10 inclusive, and with a serial number in the range of S/Ns 1001 through 1114 inclusive (the serial number can start with "MA," "MAL," or "MA-").

**NEW REQUIREMENTS OF THIS AD:**

**(k) Inspection for Part Number and Serial Number for Model CL-600-2D15 and CL-600-2D24 Airplanes**

For airplanes identified in paragraph (c)(2) of this AD: Within 900 flight hours after the effective date of this AD, inspect the MLG shock strut assemblies to determine whether an MLG shock strut assembly having P/Ns 49050-5 through 49050-10 inclusive and a S/N 0001 through 1114 inclusive is installed. A review of airplane maintenance records is acceptable in lieu of this inspection if the part and serial numbers of the MLG shock strut assembly can be conclusively determined from that review.

**(l) Inspection of the Torque Link Apex Joint for Model CL-600-2D15 and CL-600-2D24 Airplanes**

For any MLG shock strut assembly having P/Ns 49050-5 through 49050-10 inclusive and a S/N 0001 through 1114 inclusive found installed during the inspection or records check required by paragraph (k) of this AD: Within 900 flight hours after the effective date of this AD, perform a one-time detailed inspection and all applicable corrective actions on the torque link apex joint, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008, except as provided by paragraph (o) of this AD. Do all applicable corrective actions before further flight.

**(m) Replacement or Rework of the Apex Nut for Model CL-600-2D15 and CL-600-2D24 Airplanes**

For any MLG shock strut assembly identified during the inspection or records check required by paragraph (k) of this AD: Within 900 flight hours after the effective date of this AD, replace or rework the apex nut, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008.

**(n) Credit for Actions Accomplished in Accordance with Previous Service Information**

Inspections, corrective actions, replacements, and rework accomplished before the effective date of this AD, in accordance with Bombardier Service Bulletin 670BA-32-019, dated March 16, 2006, are considered acceptable for compliance with the corresponding actions specified in this AD.

**(o) Inspections Not Required Under Certain Conditions**

The inspections specified in paragraph (h) or (l) of this AD are not required if the actions specified in paragraph (i) or (m) of this AD, as applicable, have already been accomplished; or if Bombardier Repair Engineering Order 670-32-11-0022, dated October 22, 2005, or Goodrich Service Concession Request SCR 0056-05, dated October 22, 2005; has been incorporated.

**(p) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(q) Special Flight Permits**

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

**(r) Related Information**

Refer to MCAI Canadian Airworthiness Directive CF-2009-20, dated May 1, 2009; and Bombardier Service Bulletin 670BA-32-019, Revision A, dated September 18, 2008; for related information.

Issued in Renton, Washington, on January 24, 2012.

Kalene C. Yanamura,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2012-2619 Filed 02/03/2012 at 8:45 am; Publication Date: 02/06/2012]